

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of detecting cancer-associated anti-tumour autoantibodies in a sample from an individual, which method is an immunoassay comprising:

contacting a ~~the sample to be tested for the presence of such autoantibodies~~ with an immunoassay reagent; and

detecting the presence of complexes formed by specific binding of the immunoassay reagent to any cancer-associated anti-tumour autoantibodies present in the sample,

wherein the immunoassay reagent comprises one or more tumour marker proteins isolated from a bodily fluid obtained ~~tumour marker proteins prepared from bodily fluid, derived from a body cavity or space in which a tumour is or was present or associated with in or with which a tumour is or was associated, of one or more cancer patients, and/or tumour marker protein prepared from an excretion of one or more cancer patients~~

wherein said one or more tumour marker proteins exhibit ~~tumour marker protein~~ exhibits selective reactivity with cancer-associated anti-tumour autoantibodies, and

wherein detection of complexes indicates the presence of cancer-associated anti-tumour autoantibodies in the individual.

2. (Currently Amended) ~~A method according to claim 1 which comprises performing an immunoassay to detect and/or quantitatively measure~~ The method of Claim 1, further comprising detecting and/or quantitatively measuring the presence of two or more types of autoantibodies,

wherein each of the two or more types of autoantibodies is immunologically specific to different tumour marker proteins or to two or more epitopes different epitopes of the same tumour marker protein,

wherein the immunoassay is carried out using a panel of two or more immunoassay reagents, at least one of which ~~reagents~~ comprises the isolated tumour marker protein of Claim 1 ~~tumour marker protein prepared from bodily fluid derived from a body cavity or space from one or more cancer patients and/or tumour marker protein prepared from an excretion from one or more cancer patients.~~

3. (Currently Amended) ~~Use of the~~ The method of claim 1 or claim 2 ~~for the detection or diagnosis of cancer in a patient,~~ wherein the sample ~~to be tested using the immunoassay~~ is a ~~sample of~~ bodily fluid ~~from taken from the patient,~~ and wherein detection of the presence of an elevated level of the anti-tumour autoantibodies in the sample, as compared to a sample from a normal control, indicates individuals, ~~is taken as an indication that the individual has or is developing cancer.~~

4. (Currently Amended) ~~Use of the~~ The method of claim 1 or claim 2 ~~in monitoring the progress of cancer or other neoplastic disease in a patient,~~ wherein the sample ~~to be tested using the immunoassay~~ is a ~~sample of~~ bodily fluid taken from the a patient, and wherein detection of the presence of an elevated level of the anti-tumour autoantibodies in the sample, as compared to a sample from a normal control, ~~is taken as an indication of~~ indicates the ~~presence~~ progress of cancer or other neoplastic disease in the patient.

5. (Currently Amended) ~~Use of the~~ The method of claim 1 or claim 2 ~~in detecting early neoplastic or early carcinogenic change in an asymptomatic subject,~~ wherein the sample ~~to be tested using the immunoassay~~ is a ~~sample of~~ bodily fluid obtained taken from the an asymptomatic subject, and wherein detection of the presence of an elevated level of anti-tumour autoantibodies in the sample, as compared to a normal control

individuals, ~~is taken as an indication of~~ indicates early neoplastic or early carcinogenic change in the asymptomatic subject.

6. (Currently Amended) ~~Use of the~~ The method of claim 1 or claim 2 ~~in screening a population of asymptomatic human subjects to identify those subjects who are at increased risk of developing cancer, wherein the sample is a samples to be tested using the immunoassay are samples of bodily fluid taken obtained from an asymptomatic subject the subjects, and wherein subjects having detection of the presence of an elevated level of anti-tumour autoantibodies in the sample, as compared to a normal control, individuals, are identified~~ identifies the asymptomatic subject as being at risk of developing cancer.

7. (Currently Amended) ~~Use of the~~ The method of claim 1 or claim 2 ~~in monitoring the response of a cancer patient to anti-cancer treatment, wherein the sample to be tested using the immunoassay is a sample of bodily fluid taken from the a cancer patient undergoing an anti-cancer treatment, and wherein the presence of a decreased level of the anti-tumour autoantibodies in the sample after the anti-cancer treatment, as compared to the level of the anti-tumour autoantibodies in a sample before the anti-cancer treatment, is taken as an indication~~ indicates that the patient has responded positively to the treatment.

8. (Currently Amended) ~~Use of the~~ The method of claim 1 or claim 2 ~~in the detection of recurrent disease in a patient previously diagnosed as having cancer, which patient has undergone anti cancer treatment to reduce the amount of cancer present, wherein the sample to be tested using the immunoassay is a sample of bodily fluid taken from the a patient previously diagnosed as having cancer and who has undergone anti-cancer treatment to reduce amount of cancer, and wherein the presence of an increased level of autoantibodies in the patient, as compared to a normal control, is taken as an indication~~ indicates that the cancer disease has recurred.

Claims 9-10. (Cancelled)

11. (Currently Amended) ~~A method according to any one of claims 1, 2 or 10~~ The method of Claims 1 or 2, wherein the bodily fluid ~~derived from a body cavity or space~~ is ascites fluid, pleural effusion, seroma, hydrocoele or wound drainage fluid.

12. (Currently Amended) ~~The use according to anyone of claims 3 to 9~~ method of Claim 3, wherein the bodily fluid ~~derived from a body cavity or space~~ is ascites fluid, pleural effusion, seroma, hydrocoele or wound drainage fluid.

Claims 13-14. (Cancelled)

15. (Withdrawn) ~~A method according to claim 11 or 13~~ The method of Claim 11, wherein the tumour marker protein is ~~selected from~~ MUC1, MUC16 or c-myc.

16. (Withdrawn) ~~The use according to claim 12 or 14~~ The method of Claim 12, wherein the tumour marker protein is ~~selected from~~ MUC1, MUC16 or c-myc.

17. (Withdrawn) ~~A method according to any one of claims 1, 2 or 10, 11 or 13~~ The method of Claim 1, 2 or 11, wherein the tumour marker protein is selected from the group consisting of c-erbB2, p53, ras, BRCA1, BRCA2, APC, PSA, CEA, and CA19.9.

18. (Withdrawn) ~~The use according to any one of claims 3 to 9, 12 or 14~~ method of Claim 3, 4, 5, 6, 7, 8, 9 or 12, wherein the tumour marker protein is selected from the group consisting of c-erbB2, p53, ras, BRCA1, BRCA2, APC, PSA, CEA and CA19.9.

Claims 19-38. (Cancelled)